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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,018	01/03/2002	Herbert William Holland		7092

7590 01/08/2004  
Mr. Herbert W. Holland  
2314 Chimney Rock Road  
Houston, TX 77056

EXAMINER

LEADER, WILLIAM T

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 01/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/038,018

Applicant(s)

HOLLAND, HERBERT WILLIAM

Examiner

William T. Leader

Art Unit

1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 13-22 and 25-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-22 and 25-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \*   c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)                      4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)                      5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_                      6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Receipt of the response filed on October 8, 2003, is acknowledged. Applicant has canceled claims 1-12, 23-24 and 31-36. Claims 13-22 and 25-35 are pending.

#### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 13-22 and 25-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Independent claim 13 recites the step of providing a plurality of contaminant separation sectors and then recites the step of placing said plurality of contaminant separation sectors in a substantially "coplanar" arrangement. Independent claim 18 similarly recites first and second contaminant separation sectors being mounted in a substantially "coplanar" arrangement. The intended meaning of these limitations is not clear. The words used in claims are generally given their standard dictionary definitions. The word "coplanar" is defined as "lying or occurring in the same plane" (American Heritage Dictionary). Thus, from this definition, it appears that all of the contaminant separation sectors must be in substantially the same plane. This requirement seems to conflict with the

description of the invention given in the specification. The description of the second embodiment of the invention, to which the claims under consideration are directed, begins at page 31, line 22 of the specification. At page 33, line 12, the specification indicates that Fig. 6 depicts a cut-away view of the second embodiment of the instant invention and shows a plurality of contaminant separation sectors 201, 202, 203 layered in a substantially "coplanar" array. However, Fig. 6 shows sectors 201, 202 and 203 arranged one above another. These vertically stacked sectors are in different vertically arranged planes. It is not apparent in what way the arrangement of sectors illustrated in FIG. 6 is "coplanar". Thus, the arrangement shown in FIG. 6 and the characterization of these sectors as being "coplanar" appears to conflict with the dictionary definition. Rather than being "coplanar" it appears that sectors are arranged in substantially parallel planes. It is suggested that applicant considered using language such as "arranged in substantially parallel planes" in claims 13 and 18 in place of the work "coplanar".

5. Claim 13 recites that the spacing between plates is uniform. This limitation is not clear because the relationship between the plates of each electrode in the pair of electrodes has not been specified. Claim 18 avoids this problem by reciting that the plates of the electrodes are interleaved. It is suggested that claim 13 be amended to recite that the plates of the electrodes are interleaved in the same manner as claim 18.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 13-17 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for electrodes which are interleaved, does not reasonably provide enablement for other configurations of the pair of electrodes. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. Claim 18 recites that each contaminant separation sector comprises a pair of electrode and that each electrode comprises a plurality of parallel, spaced-apart plates coupled to a common buss bar. Claim 18 further recites that the plates of the electrodes interleave and form a series of cavities along the flow path. Claim 13 similarly recites that each contaminant separation sector comprises a pair of electrodes and that each electrode comprises a plurality of parallel, spaced-apart plates coupled to a common buss bar. However, claim 13 does not recite that the plates of the electrodes are interleaved. The interleaved arrangement is the only arrangement disclosed by applicant.

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8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fajt et al (6,096,179) in figure 3, Morkovsky et al (6,294,061) in figure 5, and Tran et al (6,309,532) disclose apparatus for the electrical treatment of liquids in which interleaved are provided.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William T. Leader whose telephone number is 571-272-1245. The examiner can normally be reached on Mondays-Thursdays and alternate Fridays, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on 571-272-1244.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

WL

William Leader  
December 22, 2003

ROY KING  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER